

CLAIMS

What is claimed is:

- 1 1. A method, comprising:
2 acquiring test data from a testing device;
3 loading at least a portion of the test data to a cache onto a device under test;
4 processing the portion of the test data in the cache on the device under test;
5 and
6 intercepting requests associated with other data falling outside of the cache
7 by a pseudo bus agent to emulate a bus operation for an intercepted request.
- 1 2. The method of claim 1 wherein providing includes deterministically or
2 randomly generating the pseudo-test data by the pseudo bus agent.
- 1 3. The method of claim 1 wherein providing includes acquiring the pseudo test
2 data by selecting a data source within the device under test.
- 1 4. The method of claim 1 further comprising compressing results associated
2 with the processing and the intercepting on the device under test.
- 1 5. The method of claim 4 further providing the compressed results to the
2 testing device by the device under test.
- 1 6. The method of claim 4 wherein compressing includes representing the
2 compressed results as a digital signature for the test data.
- 1 7. A method, comprising:
2 sending test data to a device under test;
3 receiving from the device under test a signature associated with results of the
4 test data; and

5 validating the signature against an expected signature.

1 8. The method of claim 7, further comprising using a pseudo bus agent, by the
2 device under test, to emulate data traffic on a bus of the device under test when the
3 test data is processed on the device under test.

1 9. The method of claim 7, further comprising storing, by the device under test,
2 at least a portion of the test data in a cache on the device under test.

1 10. The method of claim 9 wherein storing includes servicing requests, by the
2 pseudo bus agent, for other data residing outside the cache by providing responses
3 back to the cache a pseudo bus agent that.

1 11. The method of claim 7 wherein receiving includes representing the signature
2 as a compressed version of the results.

1 12. A system, comprising:
2 a cache;
3 a pseudo bus agent; and
4 a processor for executing instructions associated with test data in the cache;
5 wherein the test data is received from a testing device and the pseudo bus
6 agent emulates responses from a bus as if the responses had originated from the bus
7 during the execution of the test data.

1 13. The system of claim 12 wherein the pseudo bus agent generates
2 deterministic or random data to emulate the responses from the bus.

1 14. The system of claim 12 wherein the pseudo bus agent selects data from a
2 variety of data sources to emulate the responses from the bus.

1 15. The system of claim 12 wherein processor logic generates a signature for test
2 data results.

1 16. The system of claim 12 wherein the bus is in communication with the testing
2 device.

1 17. The system of claim 12 wherein the test data includes instruction data.

1 18. A machine accessible medium having associated data, which when
2 accessed, results in a machine performing:

3
4 receiving a request for data on the bus in order to service a cache of the
5 machine;
6 generating pseudo data in response to the request; and
7 providing the pseudo data in the cache to satisfy the request.

1 19. The medium of claim 18, wherein the data further includes data,
2 which when accessed, results in the machine performing: acquiring the pseudo data
3 from another resource of the machine.

1 20. The medium of claim 18, wherein the data further includes data,
2 which when accessed, results in the machine performing: deterministically or
3 randomly generating the pseudo data in the machine.

1 21. The medium of claim 18, wherein the data further includes data,
2 which when accessed, results in the machine performing: representing the pseudo
3 data as a return value associated with a write operation request.

1 22. The medium of claim 18, wherein the data further includes data, which when
2 accessed, results in the machine performing: representing the pseudo data in a

3 format expected by the request having a pseudo data value that represents a
4 deterministic or random data value associated with a read operation request.

1 23. The medium of claim 18, wherein the data further includes data,
2 which when accessed, results in the machine performing: using the pseudo data to
3 emulate a bus transaction over the bus.

1 24. An apparatus comprising:
2 a cache for a device under test (DUT); and
3 a pseudo bus agent (PBA);
4 wherein the cache houses instructions for testing the DUT and the PBA
5 services requests generated by a number of executing instructions when bus
6 transactions are needed, the PBA services the requests by emulating the
7 corresponding bus transactions and provides emulated results back to the cache.

1 25. The apparatus of claim 24 wherein the emulated results are compressed into
2 a signature.

1 26. The apparatus of claim 25 wherein the DUT sends the signature to a tester
2 when testing is complete for verification.